STUDY ON EVALUATING AND IMPROVING THE QUALITY OF COMMUNICATION VIA THE INTRANET

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Abstract: Modern organizations from the beginning of the 21st century that have implemented a quality system have the obligation of knowing and applying the classic instruments of quality management. The paper proposes the use of the cause-effect diagram (Ishikawa) for assessing the quality in communication through intranet network.

Key words: quality management, intranet, fault, causes, Ishikawa diagram.

1. INTRODUCTION
Modern organizations from the beginning of the 21st century that have implemented a quality system have the obligation of knowing and applying the classic instruments of quality management. The classic instruments defined in the field of quality management are: histogram, cause-effect diagram, Pareto diagram, correlation diagram, control chart, stratification analysis and Brainstorming.

By using the classic instruments of quality management one is able to know and analyze the causes that negatively influence the quality of a product, process, event, etc. These instruments have the advantage that they can be used in various fields of activity starting from products manufacturing to local public administration.

In Romania real campaigns have to be developed in order to make companies managers and quality departments leaders in every field of activity aware on the importance to apply the instruments of quality management for the purpose of assuring and assessing quality.

Conceived by a Japanese named Ishikawa and known by different names such as: cause and effect diagram, or Ishikawa diagram "herringbone" this is a method of analysis used to determine a problem causes. The diagram classifies various causes that are believed to affect work results, marking by arrows the cause-effect relationship between them.

The effects are defined by quality features or employment issues, costs, production quantity, delivery, security of employment, activities of quality circles, etc. The causes are factors that influence the effects. These include as main factors: materials, machines, methods of operation, workers and the environment. The diagram branches are arrows showing the relationships between effect and causal factors. The arrows that connect the center line resembles the branches of a tree trunk. The cause and effect diagrams are particularly useful to analyze a certain process. All people involved in the respective matter must participate by giving their views to explore factors associated problem. The cause and effect diagram can be drawn up for different purposes, such as:
- What causes failure to achieve the quality requirements;
- What are the causes of growing the numbers of defects in a production process;
- What are the causes of lost sales productivity products, of the increasing product sold complaints, etc.;
- What are the complaints causes on the domain of services provided by various public institutions.

All categories of causes start with the letter M (machines, methods, men, materials, maintenance, milieu-environment,
management) for the productive domains. 4M, 5M, 6M, 7M Ishikawa diagram were performed like this.

In [1] it is shown that obtaining a correct diagram is possible only through working in a team with experience. An interesting model of Ishikawa diagram was developed in the case of a defect occurred after a service car repairing [2]. Ishikawa diagram application areas are continuously expanding. For example, nowadays the method is also being applied in the medical field [3].

The paper proposes the use of the cause-effect diagram (Ishikawa) for the evaluation and quality improvement in a company that uses intranet. It is presented the Ishikawa diagram realized for determining the causes of a poor communication by intranet. An intranet can be the most comprehensive internal communication tool and therefore must be known and eliminated all causes that may produce poor communication and failure to timely tasks.

2. APPLYING ISHIKAWA DIAGRAM FOR ASSESSING THE QUALITY OF COMMUNICATION VIA INTRANET

The quality assessment by applying the Ishikawa diagram for the intranet communication (cause and effect) is a technique that helps in identifying, classifying, and highlighting possible causes of both the specific problems of some features and quality.

For the construction of a cause-effect diagram there are followed the following steps:
1. Defining the actual result or effect that has to be examined.
2. Placing the effect or the features to be examined.
3. Tracing a line on the left, starting from the effect.
4. Identifying the main causes related to the effect.
5. Placing each of the main categories of the causes.
6. Identifying the main specific factors for each main branch.
7. Controlling the factors inclusion.
8. The diagram analysis.

This paper proposes applying Ishikawa diagram for assessing the quality of communication via intranet, between the employees of a company. It is believed that the company's employees are also in the position of using the intranet while working with clients.

As a following of the studies have been found several causes for poor communication via intranet. Among the most important can be mentioned, as follows:
- The employee is having the lunch break,
- The employee is situated in a building without intranet access
- The employee is attending a professional meeting
- The employee is performing another duty at work,
- Insufficient knowledge in order to use intranet
- There is no procedure for using intranet,
- There is a procedure for using intranet, but its compliance is not verified,
- An undersized server for computer network,
- Jams of the intranet network,
- Messages that do not reach their destination,
- Electric voltage fluctuations,
- Deficiencies in the network operation (viruses, large-capacity information)
- E-mails outside the work schedule,
- Insufficient workstations in some compartments,
- No electricity generator,
- Inadequate computers,
- Inadequate auxiliary materials,
- Operating system, software,
- Webcams.

Table 1 displays the classification of causal factors that determine poor communication due to intranet. Cases are grouped in four main causes and each of them is associated to the secondary causes.
Table 1.

<table>
<thead>
<tr>
<th>The problem</th>
<th>Main cause</th>
<th>Secondary causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor communication via intranet</td>
<td>1. Man</td>
<td>- The employee is having the lunch break,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The employee is situated in a building without intranet access,</td>
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<tr>
<td></td>
<td></td>
<td>- The employee is attending a professional meeting,</td>
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<tr>
<td></td>
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<td>- The employee is performing another duty at work,</td>
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<tr>
<td></td>
<td></td>
<td>- Insufficient knowledge in order to use intranet,</td>
</tr>
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<td></td>
<td>2. Machine</td>
<td>- Operating system, software,</td>
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<td></td>
<td></td>
<td>- Webcams,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- An undersized server for computer network,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Insufficient workstations in some compartments,</td>
</tr>
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<td></td>
<td>3. Methods</td>
<td>- There is no procedure for using intranet,</td>
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<td></td>
<td></td>
<td>- There is a procedure for using intranet, but its compliance is not verified,</td>
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<td>- Jams of the intranet network,</td>
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<td></td>
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<td>- E-mails outside the work schedule,</td>
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<td></td>
<td>4. Material</td>
<td>No electricity generator,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inadequate computers,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inadequate auxiliary materials.</td>
</tr>
</tbody>
</table>

Figure 1 shows the Ishikawa diagram achieved by positioning the main categories of causes and issues (i.e., their effect).

Ishikawa diagram, as presented allows a clear definition of the studied problem, respectively the intranet miscommunication. This diagram can be used as an original support of a brainstorming session, which ultimately may result in solutions of improving the studied service quality (intranet).

**3. CONCLUSIONS**

Performing the Ishikawa diagram in a more detailed form in order to determine the potential causes of a found defect has the advantage that it offers the possibility to identify and analyze all factors, which relate to the problem studied.

Ishikawa diagram allows highlighting the causes of the emergence of bottlenecks in a company in which it is also used intranet as a communication. By Ishikawa diagrams are displayed both causes and factors of objective and subjective nature, so that it can proceed after the adoption of the necessary measures of improving the situation.

The accomplishment of an Ishikawa diagram in a more detailed form to determine potential causes of a defect has the advantage that allows identifying and analyzing all factors related to the found problems.
Fig. 1.
Preparing a good Ishikawa diagram leads to the advantage of orienting the organization that handles the solving of a negative defect / problem to the causes that generate that defect and their removing to remedy the defect.

REFERENCES